

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations- June-July 2019
B.Tech (Marine Engineering)
Semester – VI
Ship Fire Prevention & Control (UG11T2601)

Duration: 3 Hrs

Max Marks: 100

Date: 24-06-2019

Pass Marks: 50

Part A

(10x 3= 30 Marks)

Compulsory Questions

1. a) Brief about Fire Control Plan and its locations on ship.
- b) Explain the importance of isolating valve fitted in fire line between machinery space and deck. State its location.
- c) Describe any rate of rise temperature detector fitted on board ships ?
- d) What all items should Firefighter outfit should contain ?
- e) Explain the purpose of fire drill.
- f) Define EEBD and its location.
- g) Which type of fire extinguisher can be used in Engine Control Room. with the reason for using the same?
- h) What is a fire damper and where it is fitted ?
- i) State the reasons why the water jet can not be used as extinguishing agents on Class B fire.
- j) As per the SOLAS, What are the location and requirements of Emergency Fire Pump?

PART B

(5X14=70 Marks)

(Answer any FIVE of the following)

2. (a) Draw a neat sketch of high pressure fixed CO₂ fire fighting system of engine room and label the parts. (8 Marks)
 - (b) What are the precautions to be taken before releasing CO₂ to the Engine Room ? (4 Marks)
 - (c) What are the safety provided for CO₂ Bottle Room? (2 Marks)
3. (a) As per SOLAS regulation, write the specifications of Class A 60 Bulkhead. (7 Marks)
 - (b) Explain standard Fire Test. (7 Marks)

- 4.(a)Describe the classes of fire with examples. (8 Marks)
(b)How the spread of fire takes place by conduction, convection and radiation onboard. (6 Marks)
5. Name the various teams in a ship organisation during fire emergency situation mentioning in the members present, duties, functions and muster locations of each team. (14 Marks)
- 6.(a)What are the fire safety precautions in tankers during working with respect to static electricity, tools used, lighting and electric fitting and auto ignition. (8 Marks)
(b)What are the limitations of oil used as a fuel described in Solas Chapter :II/2,Regulation 4. (6 Marks)
7. (a)Draw and explain the principal of operation of any one type of Smoke Detector. (7 Marks)
(b)With a neat sketch, explain the requirement for an International Shore Connection. (7 Marks)
8. (a)What is the Solas Requirement for Sprinkler System in accommodation space. (4Marks)
(b)Sketch and describe the functioning of automatic sprinkler System. (8 Marks)
(c) State the advantages of this system. (2 Marks)
